

REMARKS

Applicant is in receipt of the Office Action mailed June 4, 2004. Claims 6, 8, 31, 33, and 43 have been amended. Claims 1-48 remain pending in the case. Further consideration of the present case is earnestly requested in light of the following remarks.

Objections

Claims 6 and 8 were objected to because of an informality—specifically, the term “analyses”. Claims 6, 8, 31, 33, and 43 have been amended to correct the informality—specifically, to replace the term “analyses” with “analysis”. Applicant respectfully requests removal of the objection to claims 6 and 8.

Applicant appreciates the allowable subject matter of claims 4-13, 19-22, 24, 29-34, 41-43, and 48, but believes that the claims as currently written are allowable.

Section 102 Rejections

The Office Action rejected claims 1, 14, 25, 26, 38-40, 46, and 47 under 35 U.S.C. 102(e) as being anticipated by Sonoda et al. (US 6,115,494, hereinafter, “Sonoda”). Applicant respectfully disagrees.

As the Examiner is certainly aware, anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim. *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984). The identical invention must be shown in as complete detail as is contained in the claims. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Claim 1 recites:

1. (Original) A computer-implemented method for locating regions of a target image that match a template image with respect to color and pattern information, the method comprising:

performing a color matching search through the target image in order to find one or more candidate color match regions, wherein the candidate color match color regions match the template image with respect to color information;

for each candidate color match region found in the color matching search, performing a pattern matching search of a proximal region proximal to the color match region in order to find one or more match regions in the target image;

wherein the one or more match regions found in the pattern matching search of each proximal region match the template image with respect to color and pattern information.

The Office Action asserts that Sonoda teaches all the limitations of claim 1. Applicant submits that Sonoda fails to teach *performing a color matching search through the target image* in order to find one or more candidate color match regions, wherein the candidate color match color regions match the template image with respect to color information. As Sonoda clearly describes in col. 8 (and as the also described in the Office Action), in Sonoda's system the image is color filtered with respect to a specified color, the resulting image (e.g., monochrome image) thresholded, and pattern matching performed to extract markers and determine their locations in the image. More specifically, as Sonoda states in col. 8, lines 37-38, "The first step is to detect these marks (2) in the image and determine their locations." Then, in col. 8, lines 41-44, "By executing threshold processing in the image signals with respect to this color component signal and binarizing the image data, we can extract marks (2) and recognize the pattern." Finally, in col. 8, lines 57-60, Sonoda states, "We can *execute pattern recognition* using a single color component signal *and then determine whether the pattern is the specified color.*"

Nowhere does Sonoda teach performing a *color matching search*. Rather, as described above, in Sonoda's system the image is color processed to separate out the specified color component signal (image data of the specified color), and the processed image is then thresholded to extract pixels of markers of the specified color, after which pattern matching is performed on the resulting image data. Applicant submits that this color processing, i.e., filtering and binarization, is specifically *not* a *color matching search*. Moreover, Applicant further notes that Sonoda's determination of whether the pattern is the specified color, which Applicant argues is also *not* a color matching search,

is performed *after* the pattern recognition.

Thus, for at least the reasons provided above, Applicant submits that claim 1 and those claims dependent thereon are patentably distinct over Sonoda, and are thus allowable. Independent claims 26, 38, 44, and 46 include similar limitations as claim 1, and so the arguments above apply with equal force to these claims. Thus, for at least the reasons provided above, Applicant submits that claims 26, 38, 44, and 46, and those claims respectively dependent thereon, are patentably distinct over Sonoda, and are thus allowable. Removal of the 102 rejection of claims 1, 14, 25, 26, 38-40, 46, and 47 is earnestly requested.

Section 103 Rejections

Claims 15-18, 23, 35-37, 44, and 45 were rejected under 35 U.S.C. 103(a) as being obvious over Sonoda in view of Wenzel et al. (US 6,229,921, hereinafter, "Wenzel"). Applicant respectfully disagrees.

Applicant submits that since independent claims 1, 26, 38, and 44 have been shown above to be allowable, claims respectively dependent thereon are similarly allowable, and are thus unobvious and patentable over Sonoda and Wenzel.

Moreover, the Wenzel patent is not prior art to the present application for rejections under 35 U.S.C. § 103. The American Inventors Protection Act of 1999 amended 35 U.S.C. § 103(c) to state that art which qualifies as prior art only under § 102(e), (f) or (g) is not available for rejections under § 103 if that art and the subject matter of the application under examination were owned by or subject to an obligation of assignment to the same assignee at the time the invention was made. This change to 35 U.S.C. § 103(c) is effective for any application filed on or after November 29, 1999. The present application is an application for patent filed after November 29, 1999. At the time the invention was made, the subject matter of present application and the Wenzel patent were both owned by or subject to an obligation of assignment to the same assignee, National Instruments Corporation. Therefore, the amendment to 35 U.S.C. § 103(c) made by the American Inventors Protection Act of 1999 applies to the present

application and operates to exclude the Wenzel patent as available prior art for rejections under 35 U.S.C. § 103.

Removal of the 103 rejection of claims 15-18, 23, 35-37, 44, and 45 is earnestly requested.

Claims 2, 3, 27, and 28 were rejected under 35 U.S.C. 103(a) as being obvious over Sonoda in view of Paul et al. (US Pub. 2002/0037770 A1, hereinafter, "Paul"). Applicant respectfully disagrees.

Applicant submits that since independent claims 1 and 26 have been shown above to be allowable, claims respectively dependent thereon are similarly allowable, and are thus unobvious and patentable over Sonoda and Paul. Additionally, with respect to the limitations of respective base claims 1 and 26, Applicant submits that neither Sonoda nor Paul teaches a *color matching search*, argued with respect to Sonoda above. For example, in paragraph 0010, lines 3-5, Paul states, "Unlike current search and locate algorithms, the subject algorithm uses a target location technique *which does not involve search*" (emphasis added). Rather, Paul's system computes a weighted center of all pixels in the region that match the color of the target, and uses this value for the target location. Applicant thus submits that Paul's color match process does not include a *color matching search*. Applicant further notes that neither Sonoda nor Paul provides a motivation to combine, and thus the cited references are not properly combinable for a 103 rejection.

For at least the reasons provided above, Applicant submits that claims 2, 3, 27, and 28 are unobvious and patentably distinct over Sonoda and Paul, either singly or in combination, and are thus allowable. Removal of the 103 rejection of claims 2, 3, 27, and 28 is earnestly requested.

Applicant also asserts that numerous ones of the dependent claims recite further distinctions over the cited art. However, since the independent claims have been shown to be patentably distinct, a further discussion of the dependent claims is not necessary at this time.

CONCLUSION

Applicant submits the application is in condition for allowance, and an early notice to that effect is requested.

If any extensions of time (under 37 C.F.R. § 1.136) are necessary to prevent the above referenced application(s) from becoming abandoned, Applicant(s) hereby petition for such extensions. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert & Goetzel PC Deposit Account No. 50-1505/5150-43600/JCH.

Also enclosed herewith are the following items:

☒ Return Receipt Postcard

Respectfully submitted,



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